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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/998,014	11/29/2001	Adityo Prakash	020554-000940US	3916

31894 7590 08/05/2005

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EXAMINER	
SHAH, CHIRAG G	
ART UNIT	**PAPER NUMBER**
2664	

DATE MAILED: 08/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/998,014	PRAKASH, ADITYO	
	Examiner	Art Unit	
	Chirag G. Shah	2664	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 November 2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-19* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-14 and 17-19* is/are rejected.

7)☒ Claim(s) *8 and 10-19* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *29 November 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claims 1-19 examined on the merit.

Claim Objections

1. Claim 10 objected to because of the following grammatical informality: In claim 10, line 1 after the word, "manager", "if" should be changed to "of". Appropriate correction is required.

2. Claims 8 and 10-19 are objected to because the respective claims recite the limitation "capable of". Under MPEP 2106, page 2100-8, "language that suggests or makes optional but does not require steps to be performed or does not limit a claim to a particular structure does not limit the scope of a claim or claim limitation." Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –

4. Claims 1, 2, 5-7, 10, 14, 18 and 19 rejected under 35 U.S.C. 102(e) as being anticipated by Thornton et al. (U.S. Patent No. 6,363,065).

Regarding claim 1, Thornton discloses in **fig. 1** of a communication network system, comprising:

> a content server **[Gateway 200, fig. 1]** coupled with a transmitting location **[transmitting location 10, fig. 1]**;
>
> a content server **[Gateway 200', fig. 1]** coupled with a receiving center **[receiving center location 40, fig. 1]**;

a QOS guaranteed network **[PSTN Network 20, fig. 1]** connecting the transmitting location **[transmitting location 10, fig. 1]** and the receiving center **[receiving center location 40, fig. 1]**;

a non-QOS guaranteed network **[Data Packet Network 30, fig. 1]** connecting the transmitting location **[transmitting location 10, fig. 1]** and the receiving center;

a buffer **[col. 26, lines 4-25, the invention gateway of fig. 5 includes buffer that contains packets]** coupled with the transmitting location **[transmitting location 10, fig. 1]**;

a buffer **[col. 26, lines 4-25, the invention gateway of fig. 5 includes buffer that contains packets]** coupled with the receiving center **[receiving center location 40, fig. 1]**;

a transmitting stream manager **[call handler 560 within the gateway 200 includes an auto-switch manager for auto-switching between active IP call and circuit-switched calls, see fig. 5&8 and col. 26, lines 20-34 and col. 33, lines 43-50,]** for routing traffic to either QOS guaranteed **[PSTN 20 (circuit-switched), fig. 1]** or non-QOS guaranteed data networks **[Private Data Network 30 (IP calls), fig. 1];**

a receiving stream manager [**call handler 560 within the gateway 200', see fig. 5 and col. 26, lines 20-34]** for detecting demand for specific data **[when a call request (demand) occurs, the call handler manager determines which trunk group is to be used, se col. 33, lines 43-67]** at the receiving center **[receiving center location 40, fig. 1]**.

Note: According to col. 10, lines 47-58 gateways 200 and 200'(transmit and receive servers) are identical in terms of their functionality.

Regarding claim 2, Thornton discloses in **col. 10, lines 59 to col. 11, lines 4** wherein the QOS guaranteed data network [PSTN Network 20, fig. 1] is a QOS guaranteed quality of service (QOS) guaranteed network since PSTN is used or switched to route a call for ensuring a guarantee of supporting high quality speech while the data network is inadequate to support high quality speech as claim.

Regarding claim 5, Thornton discloses in **col. 4, lines 54-56** wherein the non-QOS guaranteed data network [Data Packet Network 30, fig. 1] is an Internet Protocol (IP) based network as claim.

Regarding claim 6, Thornton discloses in **col. 4, lines 54-56** wherein the non-QOS guaranteed data network [Data Packet Network 30, fig. 1] is any packet-based network as claim.

Regarding claim 7, Thornton discloses in **fig. 1** wherein the non-QOS guaranteed data network [Data Packet Network 30, fig. 1] is any communication network between the transmitting location [transmitting location 10, fig. 1] and the receiving location [receiving center location 40, fig. 1] as claim.

Regarding claim 10, Thornton discloses in fig. 5 and col. 28, lines 47-53 that the call hander 560 (receiver stream manager) in the receive gateway 200' that implements all call control functions in the gateway. **Thornton further discloses in fig. 5 and col. 22, lines 42-60 of a buffer manager in the receive gateway 200' that manages and control the buffers capable of detecting the buffer level at the receiving center (receiving center 40, fig. 1) as claim.**

Regarding claim 14, Thornton discloses in fig. 5 and col. 28, lines 47-53 that the call hander 560 (receiver stream manager) in the transmit gateway 200 that implements all call control functions in the gateway 200. **Thornton further discloses in fig. 5 and col. 22, lines 42-60 of a buffer manager 593 in the transmit gateway 200 that manages and control the buffers capable of detecting the buffer level at the transmitting location (transmit location 10, fig. 1) as claim.**

Regarding claim 18, Thornton discloses in **col. 28, lines 47-60** wherein the transmitting stream manager **[call handler 560 in the transmit gateway 200]** is capable of redirecting content to the non-QOS guaranteed **(data network 30, fig. 1)** network **[call hander 560 of transmit gateway 200 through an internal auto-switch manager auto-switches PSTN to a data network (non-QOS guaranteed network) based on dynamic changes in the QoS condition, see col. 28, lines 47-60 and fig. 1]** as claim.

Regarding claim 19, Thornton discloses wherein the transmitting stream manager **[call handler 560 in the transmit gateway 200]** is capable of resuming normal delivery of data to the receiving center **[call handler of gateway 200 handles auto-switch functionality, see col. 33, lines 35-43 and if the call is being routed through the data network and the QoS dynamically decreases, the call can be switched to be carried over PSTN and when the QoS returns to its proper level/normal level, the connection is switched to the Data network, see col. 11, lines 14-35]** as claim.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 3, 8 and 9 rejected under 35 U.S.C. 103(a) as being unpatentable over Thornton in view of Umansky et al. (U.S. Patent No. 6868080), hereinafter referred as Umansky.

Regarding claim 3, Thornton discloses in fig. 1 of a PSTN as the QoS guaranteed data network. Thornton fails to explicitly disclose *wherein the QoS guaranteed data network is any packet based network.* Umansky discloses in fig. 1 of a QoS guaranteed data network (PSTN network 18, fig. 1) and QoS non-guaranteed data network (VoIP network 20), wherein a gateway may communicate across a network via PSTN or VoIP. Umansky further discloses in col. 2, lines 45-55 that the PSTN network 18 can include an ISDN subnetwork. ISDN can carry digital voice packets. Thus, clearly the QoS guaranteed may be an ISDN packet based network.

Therefore, it would have been obvious to one of ordinary skills in the art at the time of the invention to modify the teachings of Thornton to include that a QoS guaranteed data network may be an ISDN packet based network as taught by Umansky. One is motivated as such in order to ensure quality of service when VoIP network degardes in quality.

Regarding claim 8, Thornton discloses all the limitations of claim 1. Thornton fails to explicitly disclose *wherein the buffer is capable of holding the data until all of the packets necessary to reconstruct the data is received.* Umansky discloses in **col. 4, lines 6-16** of a jitter buffer 32 of fig. 3 that buffers the audio frames and outputs them to a voice decoder in an orderly manner for decompressing and decoding (reconstructing the data). By outputting the audio frames in an orderly manner clearly suggests/implies that the buffer holds the data until all the packets arrive in order to orderly output the frames into the voice decoder. Therefore, it would have been obvious to one of ordinary skills in the art at the time of the invention to modify the teachings of Thornton to include a buffer having the capability hold and orderly transfer audio frames to the voice decoder to decode/reconstruct the data as taught by Umansky. One is motivated by such in order to orderly output decoded audio frames through the fallback cross connect to the PSTN network.

Regarding claim 9, Thornton discloses all the limitations of claim 1. *Thornton fails to explicitly disclose wherein the buffer is able to reconstruct the data.* Umansky discloses in **col. 4, lines 6-16** of a jitter buffer 32 of fig. 3 that buffers the audio frames and outputs them to a voice decoder in an orderly manner for decompressing and decoding (reconstructing the data).

The voice decoder 31 implements the decompression half of the codec employed by the voice encoder 26 (fig. 2). Upon receiving the buffered orderly audio frames, the frames are reconstructed by the means of decompressing and decoding. The decoded audio frames are then output through the fallback cross connect and telephony interface to PSTN network. Therefore, it would have been obvious to one of ordinary skills in the art at the time of the invention to modify the teachings of Thornton to include a buffer having the capability to orderly transfer audio frames to the voice decoder to decode/reconstruct the data as taught by Umansky. One is motivated by such in order to orderly output decoded audio frames through the fallback cross connect to the PSTN network.

6. Claim 4 rejected under 35 U.S.C. 103(a) as being unpatentable over Thornton in view of Civanlar (U.S. Patent No. 5,944,795), hereinafter referred as Civanlar.

Regarding claim 4, Thornton discloses in fig. 1 of a PSTN 20 as the QoS guaranteed data network between the transmitting location 10 and the receiving location 40. Thornton fails to disclose wherein *the QOS guaranteed data network is a digital cable network.* Civanlar discloses in **col. 3, lines 22-35, 59-64** of a seamlessly integrated system that makes it possible to use a packet network together with a guaranteed QoS network. Civanlar further discloses **col. 3, lines 27-33, 59-64** that a guaranteed QoS network may be PSTN, ISDN, ATM, or cable network. Therefore, it would have been obvious to one of ordinary skills in the art at the time of the invention to modify the teachings of Thornton to interchange a PSTN guaranteed QoS network with a Cable network in order achieve the same results of guaranteeing QoS network.

7. Claim 11 rejected under 35 U.S.C. 103(a) as being unpatentable over Thornton in view of Kilkki et al. (U.S. Patent No. 6,081,843), hereinafter referred as Kilkki.

Regarding claim 11, Thornton discloses in col. 26, lines 14-31 of TASQ working in conjunction with call handler (receiving stream manager) for obtaining the packet loss statistics such as a buffer (packet) under/over-flows for each call in addition to latency to determine the connection grade for particular call. Thornton fails to explicitly disclose *wherein the receiving stream manager is capable of sending request to the stream manager at the transmitting location to increase the data transmission rate when the buffer level at the receiving center is below a threshold.* Kilkki teaches of a buffer for regulating cell transfer rate. Kilkki discloses in **col. 6, lines 20-35** of monitoring the buffer occupancy at the receiver such that when the buffer level falls below a predefined threshold value, a signal (message) is sent and directed to the cell output source (transmitter manager) to increase its output cell rate. Therefore, it would have been obvious to one of ordinary skills in the art at the time of the invention to modify the teachings of Thornton to include the feature of sending a message to the transmitting manager to increase the rate when the buffer level is below the predefined threshold as taught by Kilkki. One is motivated as such in order to efficiently regulate the transfer rate at the network source unit in response the network load information *(Kilkki, col. 3, lines 21-25).*

8. Claims 12, 13, and 17 rejected under 35 U.S.C. 103(a) as being unpatentable over Thornton in view of Lackman et al. (U.S. Patent No. 6,188,670), hereinafter referred as Lackman.

Regarding claim 12, Thornton teaches all the limitations of claim 1. Thornton fails to explicitly disclose *wherein the receiving stream manager is capable of sending request to the stream manager at the transmitting location to give higher priority to specific data.* Lackman teaches in col. 5, lines 65-67 that the receiver controls the priority level associated with real-time and non-real time data. Lackman discloses in **col. 6, lines 23-34** of the receiver (receiving stream manager) sending request in the form of a control packet to the transmitter (transmitting stream manager) to send real-time data (specific data type) at the higher real-time priority level upon the level of the receiver's buffer falls to a lower buffer threshold. Therefore, it would have been obvious to one of ordinary skills in the art at the time of the invention to modify the teachings of Thornton to include the features of prioritizing a specific real-time data with a higher transmission priority as taught by Lackman. One is motivated as such in order to properly manage and customize the priority level associated with real-time timely data traffic for maintenance of an appropriate level of data in the frame buffer *(Lackman, col. 6, lines 1-7).*

Regarding claim 13, Thornton teaches all the limitations of claim 1. Thornton fails to disclose *wherein the receiving stream manager is capable of sending request to the stream manager at the transmitting location to stop giving higher priority to specific data.* Lackman discloses in **fig. 7 and col. 7, lines 51-57** of the transmitter receiving a request from the receiver to change the priority level of real-time packets from HRTP (High) priority level to LRTP (low) priority level. Thus, clearly establishing that the receiver sends the transmitter a request for stopping the real-time packets from being transmitted at a High priority level. Therefore, it would have been obvious to one of ordinary skills in the art at the time of the invention to

modify the teachings of Thornton to include the features of receiver sending a request to the transmitter to stop high transmission priority of real-time data as taught by Lackman. One is motivated as such in order to properly manage and customize the priority level associated with real-time timely data for maintenance of an appropriate level of data traffic in the frame buffer *(Lackman, col. 6, lines 1-7).*

Regarding claim 17, Thornton discloses all the limitation of claim 1. Thornton fails to explicitly disclose *wherein the transmitting stream manager is capable of receiving request from the stream manager at the receiving center to give higher priority to specific data.* Lackman teaches in col. 5, lines 65-67 that the receiver controls the priority level associated with real-time and non-real time data. Lackman discloses in **col. 6, lines 23-34** of the receiver (receiving stream manager) sending request in the form of a control packet to the transmitter (transmitting stream manager) to send real-time data (specific data type) at the higher real-time priority level upon the level of the receiver's buffer falls to a lower buffer threshold. Thus based on the respective section, since the receiver (receiving manager) sends a request to the transmitter (transmitting manager), the transmitter (transmitting manager) is clearly capable of receiving the request from the receiver (receiving manger) for giving/transmitting high priority to real-time data packets. Therefore, it would have been obvious to one of ordinary skills in the art at the time of the invention to modify the teachings of Thornton to include the features of prioritizing a specific real-time data with a higher transmission priority as taught by Lackman. One is motivated as such in order to properly manage and customize the priority level associated with

real-time timely data for maintenance of an appropriate level of data in the frame buffer *(Lackman, col. 6, lines 1-7).*

Conclusion

Any response to this action should be faxed to:

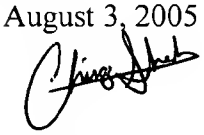
(571)272-8300, (for formal communications intended for entry)

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chirag G. Shah whose telephone number is 571-272-3144. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin can be reached on 571-272-3134. The fax phone number for the organization where this application or proceeding is assigned is 571-272-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

cgs
August 3, 2005



Chirag Shah